

In the specification:

Please replace the second paragraph on page 24 with the following:

The desired range of wavelengths to be analyzed dictates the type of detector used in the present invention, which typically is wavelength limited. For example, a fairly inexpensive silicon photodiode array is capable of detecting light intensities of wavelengths between 400 and 1100 nanometers. Other detectors optionally used in the invention are lead sulfide and lead selenide detectors, which support a response between 1000 to 3000 nanometers and 3000 to 5000 nanometers respectively. Optionally, other detectors used in the invention for near-infrared radiation include silicon, germanium, InGaAs, and PMTs (Photo-Multiplier Tubes).

Please replace the third enumerated paragraph on page 32 with the following:

7. Calculate the absorptance spectrum A, where the light absorption as derived from these diffuse reflectance measurements is given by:

$$A = \text{LOG}_{10} \left(\frac{R-D}{S-D} \right) A = \text{LOG}_{10} (R-D) / (S-D).$$